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CHOLERA: ITS HABITS AND PECULIARITIES.

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I have endeavored to impress upon the minds of the reader the great philosophic truths uttered, in 1848, in the British and Foreign Medical Review. At no time, by no one, has a purer truth been announced. Let it be repeated and reiterated until it forms "the web and the woof" of every mind. These truths thus begin: "The true philosophy of medicine is the knowledge of the causes of disease, or, if these causes be too subtle and refined for our gross senses, it is the knowledge of the several conditions external or internal to the body which give those causes power. In the future history of medicine we shall see men returning to the principles promulgated by its earliest founders. They will perceive that the treatment of the fully formed disease is at the same time the most difficult and the least useful part of this noble profession. They will learn to arrest the evil at the fountain-head, and not to dam the current swollen by a thousand tributaries. . . . It will not be the least triumph of this philosophy that it has indicated the true mode in which the great epidemic of our time can be most easily and most effectually controlled. It bars out the disease, not with quarantines and cordon sanitaires, but with cleanly people and uncontaminated air. *The evil which springs from the bosom of nature only needs for its removal an observance of the rules which nature herself reveals.*" These truths should be deeply burned into the mind of every one who has any care for his health. I would that they could be so imbedded

that they would be ineffaceable; that time itself should not let them grow dim.

Hippocrates was once summoned to Abydos, in Asia Minor, near the place where Xerxes crossed the Hellespont, to redeem the place from the annual ravages of intermittent fever. He viewed that as a natural disease, not to be effectively overcome with medicine. He surveyed the condition of the city, discovered wherein the sickly portion was unlike the healthy parts, and resolved "to arrest the evil at the fountain-head, and not to dam the current swollen by a thousand tributaries." He accordingly caused that portion of the city that abounded in swamps to be drained and filled up with earth, thereby stopping the decomposition of damp vegetable material, and securing uninterrupted exemption of that quarter of the city from intermittent fever from that time down to the present day. Herein he consulted nature, learning from her that it was only necessary to make the fever quarter like those parts that were free from fever in order to give it immunity. That which Hippocrates did successfully for Abydos can be done as perfectly for any place infected with cholera.

I promised to resume the consideration of "the law of latency" as an integral part of this question. Let us learn the alphabet of this law of latency from intermittent fever. There is a daily form which usually commences about eleven o'clock in the morning and terminates in a profuse perspiration in the afternoon. From that time until the next paroxysm the patient is usually well, until about eleven o'clock the next day, when his attack comes on again. In the third-day form the paroxysms come every other day. In the interval the patient is well. During this interval the poison is latent. This is an elementary form of the law. There is another feature of it that is very curious, but this curious feature is perfectly

regular in its obedience to a numerical phase. A patient, by taking some of the salts of Peruvian bark, has his chills "broken," as the process is called. But in many cases, without a single imprudence in diet or conduct, on the fourteenth, twenty-first, or twenty-eighth day, the patient is again attacked. The relapse always comes back on a multiple of seven, no matter how long the interval may be. Again, after intermittent fever is checked in a locality by frost, which destroys the poison, many persons who were residing in the locality where the poison was rife, will be attacked with the form of malady that prevailed while the poison was active. Many of these persons are attacked one, two, or three months after the poison ceased external to their bodies. But strangers to the locality, who have moved into it after the poison ceased its active career, escape until the poison is again manufactured. Now these strangers would be more liable to attack than the natives if the poison were there, a fact first remarked by Dr. William Charles Wells, of Charleston, South Carolina, the author of the first philosophical treatise on Dew that ever appeared in the English language. Professor Elisha Bartlett, that renowned medical and classical scholar, once delighted the people of Louisville, Ky., by a lecture he delivered in the University of Louisville, devoted to the life and character of Dr. Wells, in which were fully portrayed the great merits of the essay on Dew.

But let us survey, in order to have before us the reality of this "law of latency," as an ingredient of this poison, the celebrated Walcheren expedition. In 1809, while William Pitt was Prime Minister of England, an armament of imposing force, one of the finest that England had ever sent from her coast, was ordered to Walcheren for the purpose of bombarding Flushing, then held by the French. The army was landed on two Dutch islands, Walcheren and Beveland. Very soon after the army took up its encampment sickness began to rage, and it was so severe and so fatal that this splendid expedition was speedily disorganized. The Earl of Chatham, the elder brother of the Prime Minister, but who had scarcely any sense, was commander of the expedition. He saw that there was no sickness on the vessels anchored a short distance from the shore, but had not enough intelligence to place his army back on board the vessels. The sickness was dysentery and pernicious remittent fever. The

army was kept on the islands until it was ruined. The remnant was then ordered back to England. A great many of the soldiers seemed to have escaped the disasters that had caused the death of many of their comrades. To all appearance they were well, and were dismissed from the service. They were scattered over England, Wales, Scotland, and Ireland. They continued to die; scarcely one of them escaped death. No matter how well they seemed to be when attacked, they speedily collapsed and died after short attacks. Nearly every prominent physician of England, Wales, Scotland, and Ireland attended these cases, in many instances one year after the army returned from the expedition. The disease was so very severe and so fatal that medical men named it the Walcheren disease. It appeared in no one who had not been a member of that expedition. The thing that puzzled the medical men of Great Britain was, that many of these cases occurred in some of the healthiest districts of the country, and hundreds of the victims seemed to be in possession of good health up to the moment of seizure. But they died just as the men died at Walcheren. A great number of examinations after death were made in Great Britain, and I have read the reports with deep interest. I do not remember a single case in which the statement was not made that "the livers and spleens resembled bags of soot." What I wish to impress upon the reader is, that this disease was acquired at Walcheren; that the persons when disbanded seemed to be in good health; that through varying periods, from a month or two months up to one year, and over that period, they continued to be attacked, and scarcely one of the whole number failed to die. This is one of the most striking exemplifications of the law of latency that I know of, because of the magnitude of the scale on which it was displayed. The officers of this expedition escaped, because they rented houses on the islands and slept up-stairs. The soldiers were in tents and slept near the ground.

Another feature of this "law of latency" which I wish to rivet in the memory is, that having acquired the poison in Walcheren, no matter how long an interval elapsed, they died just as those attacked on the island died. Another truth should be enforced here: If these soldiers, instead of being disbanded, had been placed under the influence of the salts of Peruvian bark until the "latent poison" was removed,

scarcely one, if one even, would have died of the "Walcheren fever." Elliottson mentions a curious case in his lectures on Practice that shows the triumphant results of the sulphate of quinine. He was the greatest master of the subject that England ever possessed. His work is a treasure on this subject as well as upon many others.

The question naturally rises now, Is this "law of latency" a feature of cholera? I answer, that there is no disease in which it is more conspicuous, nor is there one in which it is more necessary to remember it. It is not very essential to remember it in intermittent fever, because we may usually save the lives of those patients, but we may save them a large amount of suffering by being prompt in our remembrances. But it is widely different in cholera. When we know that a person has slept at night, near the ground, at a place where cholera was developed, we can not be too much on the alert. By being true to duty we may save many lives. It is too late to begin after "latency" has commenced activity. The salts of Peruvian bark might as well be thrown away as given in that case. I have known too many instances of this to be mistaken about it. Hence the necessity that in cholera management a medical man should have what the Anglo-Saxons very expressively called it, his wits about him. If he does not, he will not only lose those who are attacked, which he is bound to do, but he will have the humiliation, and it should be a festering chagrin, of losing those who could have been saved if he had recognized and performed his duty. I have received letters from the alumni of the University Medical School, who were practicing in the mountain portions of Tennessee, detailing cases of latency in cholera among those who fled from portions of Tennessee desolated by cholera, who congratulated themselves upon their safe arrival in a haven of refuge, to wake up some night, three or four weeks after, in the throes of death with the disease from which they had fled. No one had it but those who had slept at night in the locality of the destroyer; and although they ran away from the locality of the scourge, they died with this special, specific disease. There is scarcely an instance of a cholera endemic any where that has not furnished cases of this kind.

A very expressive set of cases of this "latency" in cholera I shall now detail. I have often published them; they can not easily be too well known nor too vividly

remembered. In December, 1849, a cholera epidemic during very hot weather, the thermometer reaching 84°, ravaged New Orleans. The isothermal line reached Memphis. Major Dix, a paymaster of the United States, after spending about a week in Louisville, went to Memphis to pay off some claims of the navy-yard. After getting through his business he returned to Louisville, where the ground was covered with snow. He spent some eight or ten days here with his health unimpaired. He took passage on the mail boat for Cincinnati with two persons unknown to him, who with him took the Wheeling packet at Cincinnati. They reached Wheeling and engaged seats in the stage, which left next morning for Pennsylvania and Washington City. All that region of country was locked in the fetters of winter, and the earth was covered with snow. Very soon after the stage left Wheeling, without any warning, it was discovered that Major Dix was collapsed with cholera, and of course dying. The stage stopped at a farm-house at the roadside, the inmates of which humanely took charge of him and nursed him until he died. The stage continued its course toward Brownsville, where it changed horses. Before reaching that place another passenger collapsed, and he was put off at the tavern, where he died. He had been at New Orleans during the endemic. A third passenger who had been exposed to the cause yet remained. He continued his journey to his home at Youngstown, where he was attacked, and died as Major Dix and the patient at Brownsville died. When the stage left Wheeling there were over twenty passengers in it and on it. The three cases mentioned were the only ones, in a region embracing five hundred square miles, who showed any signs of this disease. They had been where the cause was in operation, had imbibed it and carried it in a latent form until it assumed activity. At that time we were receiving in Louisville cases from boats from New Orleans and Memphis, from fifteen to twenty-five at a time; they were taken to their homes, to the houses of their relatives, or to the city hospital, and Louisville remained in thorough health. Prof. Bayless corroborated these statements before the College of Physicians and Surgeons, stating that he opened the bodies of many of these victims to obtain specimens of pathological anatomy, from which no evil was derived.

I hope that I have thus made clear the

fact that latency is an ingredient of this cause as clear and indisputable as that it can not rise from the ground to the second and third stories of houses. I shall hereafter have use for these material facts in the cause of cholera.

I promised to speak of Dr. Shapter's successful labors in changing the condition of Exeter after the great outbreak of cholera in that city in 1832. I did not see any reference to his efforts until a few years ago, many years after successful efforts had been pursued here. Dr. Shapter sent me a copy of his book, containing a map of Exeter properly marked for the ravages of Cholera in 1832, 1833, and 1834. Those who may read it may, in some parts of it, occasionally imagine that they are reading records of the mediæval ages in the contests with sweating sickness, black death, and pestilences with uncouth names. With a praiseworthy determination to meet cholera with some show of resistance, Exeter, in obedience to the senseless "Orders in Council," resorted to fumigations, the use of chloride of lime, the utter destruction of the clothes of those who died with the disease, and the incasement of the bodies of the dead in cotton or linen, I do not know which they preferred, saturated with pitch or coal-tar. This proved to be a great nuisance to other inmates of the dwellings, and it was abandoned. But, as a substitute for this abomination, orders were given "to light fires with tar and tar-barrels broken to pieces in the most confined parts of the city, in order to purify the air during the present diseased state of the city." Vinegar was freely burned, and chloride of lime was injudiciously used. "Nearly eight hundred weight was distributed by the Board of Health, besides what was purchased by private individuals." We do not hear that any of the town officers were directed by these "Orders in Council" to stand in the streets after sunset and "bay the moon" to keep down the dogs of cholera. This order would have been as wise as the courses that were directed, and it would have been more tolerable than the practices pursued, and equally efficient. But a brighter day was dawning for this pandemonium of folly. Dr. Shapter had nothing to do with these eccentricities. He saw the local condition of the parts of Exeter afflicted, and determined to make a change in that condition. His great efforts were to improve the quality and quantity of the water-supply, to change the drainage of

water, to create proper sewerage and keep it in active work. The good effects of this enlightened method were speedily manifested.

There were in 1832, from July 19th to the 19th of October, 402 deaths from cholera, and 142 from other causes. In 1833 the deaths from cholera amounted to 20; in 1834, to 47. To Dr. Shapter is mainly due this great and beneficent change. The result at Exeter is that which has universally occurred every where in controlling and extirpating this terrible disease. Many hundreds of places once scourged with it, by a change in the local condition, have never known it since.

I close this article with this great, this immortal truth: That which has caused one attack of cholera has caused each case of it since the first one occurred. In her wide, her diversified domain, nature has never made two causes to produce one effect. A specific effect always has a specific cause.

It is our imperative duty to carefully, faithfully, and diligently search with all the powers with which nature has gifted us for each cause. Well and truly did the Roman poet say, "Happy is he who knows the cause of things." The intermittent and remittent fevers at Louisville are produced in Louisville. India has no more agency in their production than if she did not exist; nor does Louisville have any thing to do with the production of intermittent or remittent fevers in India. Nor does Hindostan any more have the shadow of an agency in producing cholera in Louisville than Louisville has in creating the disease in Hindostan. In each country in which it appears it is a home production. It is exclusively due to the conjunction of solar temperature, of moisture, and vegetable decompositions in certain proportions, that the cause of intermittent and remittent fever and cholera is produced, and this conjunction of these three elements, in any part of the earth, will produce these diseases; and they are produced on the spot where the conjunction occurs, without any reference to any other part of the world. Neither solar heat, nor moisture, nor vegetable decompositions are constant in this conjunction, hence the variability in the production of the effects.

There is a fixed fact in science: There is not a plant, however humble its size, nor a tree, no matter how grand and majestic, that does not owe all it possesses to the sun.

Each plant has allotted to it a certain, a definite amount of solar temperature, without which it can not reach the perfection that belongs to it. Without that amount of solar heat, it is cut short in its career toward perfection. There are large areas of territory in which the date-tree never ripens its fruit; there are other large regions in which the people find their sustenance in the fruit of the date-palm. This is the scientific truth respecting every plant that grows. Asia is a region where the magnitude of solar heat, of vegetable material, and of moisture abounds. Hence it presents instances of epidemic diseases that do not abound in other regions of the earth. India does not regulate the solar heat, vegetable decomposition and moisture of Kentucky, any more than Kentucky creates and regulates those elements for India. Each possesses the local conditions of these elements, and when they reach a certain conjunction, either in India or in Kentucky, disease is the result, be it intermittent or remittent fever, dysentery, cholera, or yellow fever. This local condition and its results I shall demonstrate in the next number of this series.

Miscellany.

SOME MISPRINTS.—In our issue of last week may be found two typographical errors, as follows: On page 85, in an article called "An Example for Physiologists," *opinions* should be read for *operations*; and on page 88, under the heading "A Way to Get on," *monograph* should take the place of *monogram*. The first error is inexcusable; but since we were equally to blame with the printer and proof-reader for not seeing it in time, the punishment prescribed for the offense was light. The second was in the original copy, and might perhaps be defended on the ground that there is as much warrant for the use of monogram, as applied to a single article or writing, as there is for the word telegram, which is used in a similar sense. Conventionality and common usage only have made the distinction, since the Greek words *gramma* (γραμμα) and *graphe* (γραφη) may stand with equal significance and propriety as descriptive of a writing or writings (scriptures) as of a written work or book.

"Forgiveness to the injured does belong;
But they ne'er pardon who have done the wrong."

THE TREATMENT OF CHLOROSIS BY BLOOD-LETTING. — The editor of the British Medical Journal declines a paper written by one Dr. Dyes, in support of this astonishing measure, with the following pertinent comments: If there is one fact certain in medicine, it is this, that iron given in sufficient doses will rapidly ameliorate many cases of chlorosis. Naturally enough a disease such as this, which is a resultant of many conditions, will require a careful adaptation of means to the particular case in hand; but that a large number are rapidly relieved by iron, none with adequate experience can dispute. It is one of the unfortunate results of the competition of the present day, of the inevitable pitting of man against man, that every one of us is trying to say something that no one else has said before him. Success in the struggle is not easy; the dishes served up by us are mostly *entrées*, old friends in new and unsubstantial dresses, but we are compelled to admit that Dr. Dyes has accomplished it in saying that the blood of the chlorotic is thick and dark colored, and that bleeding will remove these abnormalities. It has been said before, and the statement applies here, that what is new is not true. That what is true is not new is often made part of the proverb, but this does not apply so well, for if facts depend upon the teachings of experience, there are none. Dr. Dyes does not think that simple loss of blood can ever produce anemia, because he has never seen it do so. He should have waited before writing upon the subject until a riper experience came to him.

DEATH FROM EPILEPSY AND CHLOROFORM. The British Medical Journal notes the following: A man, at Liverpool, named Meredith, while engaged in a drunken quarrel fell and broke his thigh. The injured limb was set in due course, but did not remain in the socket, and some time after, Mr. Bell, of New Brighton, with another medical man, administered chloroform to him for the purpose of resetting it. During the operation, and while Meredith was under the influence of chloroform, he was seized with an epileptic fit, and died in a few minutes. The deceased had been a heavy drinker.

REV. Mr. Beecher, in referring to his trip to Europe, says he agrees with Dr. Thomson, who said, when he came on deck, that the ocean looked like one vast dose of ipecac.—*Weekly Drug News*.

CONSERVATIVE SURGERY A HUNDRED YEARS AGO.—From an address on surgery delivered before the British Med. Association, by Reginald Harrison, F.R.C.S., we extract the following: Henry Park was surgeon to the Royal Infirmary from 1767 to 1798. I can not do better than quote a passage which our local historian, Sir James Picton, has selected (*Edinburgh Review*, October, 1872), as paying a deserved tribute to his memory: "In the latter portion of the last century, when a vigorous flash of originality seemed to light up the annals of surgery, Park, of the Liverpool Infirmary, may be said to have accomplished the first act of conservative surgery. His patient being a sailor, to whom the loss of a foot and leg would have been tantamount to the loss of his means of getting bread, determined him to make the experiment of simply excising the diseased part, the knee-joint, and retaining the foot and leg. This he did so successfully that, to use his own words, the patient some years after the operation made several voyages to sea, in which he was able to go aloft with considerable agility, and to perform all the duties of a seaman; that he was twice shipwrecked, and suffered great hardship without feeling any further complaint in that limb. This was a crucial test of success that should have stamped the operation as one of the greatest surgical triumphs of the time; but, like so many other great strides taken in that age of extreme vivication, it was in advance of its fellows, and was destined to be arrested for the better part of another half century."

OPERATION FOR RELIEF OF PROSTATIC ENLARGEMENT.—Enlargement of the prostate is especially interesting to us in relation to its earliest and to its most advanced forms. If we take the obstructive disorders of the urinary apparatus, and inquire what feature of them is most detrimental to the associated parts, the answer will be, the misdirection of the muscular force that is thereby entailed. How can we explain the structural alterations which take place behind the obstructed point, and which manifest themselves in different ways, except as the results of urinary retention and retrograding pressure? How frequently do we find, in cases of stricture or enlarged prostate, that the whole of the apparatus behind the primary constriction consists of little else than dilated saccules and tubes. Is not this distinct evidence of back-pressure going on, though it may be imperceptible,

from the moment that impediment arises to the escape of urine from the bladder? The more we study animal mechanics, either in their physiological or pathological application, the more can we appreciate the truism that force is never lost. If it is not permitted to act for good, it must be productive of evil; if it is not exerted toward the legitimate fulfillment of a normal act, it must inevitably exercise a corresponding pressure in an abnormal direction. Whenever I see in the post-mortem room an ordinary specimen of dilated kidney, tortuous ureter, or sacculated bladder, associated with an enlarged prostate, or a stricture, the expression "misdirected force" almost involuntarily escapes from me.

Such considerations have led me to believe that our treatment of prostatic stricture—or by whatever name we know it—commences, as a rule, far too late; we delay until the bladder shows, by the formation of a pouch, or a saccule, behind the prostate, the first bad influence of back-pressure before we seek to rectify it.

I have endeavored to prove how much good may be done by the adoption of judicious mechanical treatment on the appearance of indications that the prostate is commencing to obstruct micturition, and I have founded my suggestion upon a condition which may be seen illustrated in any museum, namely, one in which, though the gland has become large, obstruction has not been known to occur. An extended adoption of this practice has convinced me that the pressing symptoms connected with an enlarging prostate may be kept in abeyance by the timely employment of those principles of treatment which are generally recognized as being applicable to any tubes within the body which are threatened with occlusion and are within our reach.

In the more advanced forms of prostatic enlargement, where the bladder has been converted into a receptacle little better than a chronic abscess in which urine stagnates, surgery has done much to afford relief.

When the comfort that catheterism is capable of affording has ceased to be effectual, other plans of establishing a drain for the urine are at our disposal. I shall not discuss the various means of effecting this; let me, however, say a few words in reference to two which have more recently come under notice: these are, first, incision into the bladder from the perineum; secondly, paracentesis through the enlarged gland.

For the purpose of securing a more or

less permanent channel for the escape of urine from the bladder other than by the urethra, I must admit that, following the practice of Syme, and to some extent of Edward Cock, I have a decided preference for an incision through the perineum, on the two-fold ground of safety and comfort. We have had numerous examples of the great benefit that cystotomy is capable of affording for bladder affections dependent on a large prostate—none perhaps more striking than the case narrated by Mr. Lund, on the memorable occasion of the meeting in London of the International Medical Congress. . . . I here submit to your notice a method of puncturing the bladder through the enlarged prostate which has afforded gratifying results. It consists in passing the trocar through the gland, and retaining it in the perineum, so as to afford a permanent as well as a convenient drain for the urine. I should have had more diffidence in commending this operation to your notice had it not received the approval of our distinguished associate, Professor Gross, whose contributions to the surgery of the urinary organs are held in deservedly high repute on both sides of the Atlantic.

Though the primary object of cystotomy, as usually practiced, is merely to place the bladder at rest by providing a continuous drain for the urine as well as the products of cystitis, it occurred to me, as it had already done to others, that it would be possible to extend this proceeding, with the view of removing those barriers to micturition which the hypertrophied gland so frequently presents.

It was to meet conditions such as these that Mercier introduced and practiced division of the prostatic bar by means of a cutting instrument introduced along the urethra. This plan, though admirable in its conception, was open to the objection that in its execution it was necessarily uncertain, there being no means of surely ascertaining that the section was confined to the obstruction to be removed. On carefully considering the position of matters, as well as the proposals that had been made, it appeared to me more reasonable to attempt to divide the prostatic obstruction at the neck of the bladder, from an opening made into the membranous urethra, than by means of instruments which had to traverse the whole length of the canal. I have recently brought under notice a case (*British Medical Journal*, June 9th, 1883,) in which I thought it desirable to explore the pros-

tatic urethra from an opening made in the perineum, and through which I was enabled to divide with precision a prostatic barrier. The division of this portion of the gland was followed by complete restoration of the power of micturition, and has so far proved of permanent advantage.

The proceeding which I have thus put into practice seems first to have suggested itself to Mr. Guthrie, but I can not find that he ever employed it. That it is not identical with the somewhat extensive incision of the prostate as for lateral lithotomy, which was practiced by Sir William Blizard, is at once obvious. Its aim is to divide the obstruction—and the obstruction alone—by an opening so planned as not to expose the patient to undue risk; while, at the same time, it is capable of affording the greatest amount of room for manipulation by an extension of the incision, should this be found to be necessary.

I need hardly observe that a proceeding of this kind should be undertaken before the bladder has passed into a condition of confirmed and irremediable atrophy; otherwise, though we may succeed in removing an obstacle to the introduction of the catheter, our prospect of restoring the power of micturition will be as hopeless as it has proved to be under somewhat similar circumstances where the operation of lithotomy has been undertaken.

It is impossible to avoid the conclusion, from their examination after death, that many atonied bladders might have been prevented becoming so by the timely removal of the obstruction by which a condition of a permanent paralysis was induced and maintained.

The operative treatment of the enlarged prostate, when it obstructs micturition to a degree that can not be met by judicious catheterism, is yet, I believe, open to considerable improvement.

Though the literature relating to either complete or partial excision of the prostate is very limited, there is much in it of promise. In one case, where I extirpated the whole gland for malignant disease, the benefit that followed far exceeded my expectations. It was that of a middle-aged man, who, by reason of a carcinomatous prostate, was threatened with a speedy and painful death. I cut down upon the gland in the median line, and succeeded in enucleating it tolerably cleanly with my finger. I saw this patient eight months afterward in very fair health, and quite able to go about his

business. So far he has enjoyed an immunity from the symptoms which induced me to perform this operation, and though his disease is a malignant one, we have every reason to be content with the results obtained.

Then we have numerous examples where considerable masses of the prostate have been removed with very great advantage in the course of operations on the bladder. Among these I would specially mention an important case by Mr. Bickersteth (Trans. Royal Med. Chir. Society, 1882,) and, more recently, another by Dr. John Ashhurst, of Philadelphia, in which the whole of an enlarged third lobe was successfully removed.

Cases such as these seem to favor the hope that operative surgery will be found capable of affording more relief to exceptional instances of this kind, and of extending to the large prostate the treatment which in some degree is applicable to other deep-seated growths.—*Ibid.*

A COMPLIMENT TO AMERICAN SURGEONS. While the surgical mind was, to some extent, in doubt as to the limits to which the crushing operation of stone might safely be pushed, two important communications followed rapidly upon each other. That both of them should have emanated from America merely indicates that the desire to advance the art of surgery is not limited to the old country, but is a natural outcome of advancing civilization and humanity.

The first of these papers was by Dr. Otis, of New York, who demonstrated beyond all reasonable doubt, and in a manner which had not previously been attempted, that the male urethra was capable of safely receiving far larger instruments than were generally employed. Following upon this, and probably influencing the views of the author, came Dr. Bigelow's paper on the removal of stone from the bladder by crushing and withdrawing it at a single operation; the latter communication clearly showing that the bladder was tolerant of much more prolonged manipulation than had previously been believed.

It appears to me that the originality of Bigelow in no way detracted from the importance of the work that had previously been done in this country and elsewhere, or compromised the acumen of those who were most interested in the progress of this department of surgery.

That Bigelow's method of procedure is a great step in advance—that it has extended

the limits of lithotripsy and curtailed those of lithotomy—there can not be the least doubt. But to suppose that it is capable of universal application, or ever likely to be so, is as unreasonable as to suppose that the art of surgery in no way differs from the art of administering Holloway's pills. But does the lithotripsy of to-day represent the finality of its perfection? I trow not. When we consider what chemistry, electricity, and other agencies are doing—how physical force is in many directions being supplanted by other means—can we doubt that there are yet improvements in store in the methods of effecting the destruction of concretions within the body? Nay, are there not already significant indications that such improvements are nigh at hand? Is it likely that the fruit of the labors of Garrod, of William Roberts, of Ord, of Vandyke Carter, and others has been already gathered? May not a more perfect knowledge of the physical and physiological laws which regulate the production of concretions in the human body result in enabling us not only most surely to prevent them, but to destroy them? *Ibid.*

THE INFLUENCE OF SOCIAL POSITION ON THE DEATH-RATE.—The report of the Registrar-General for Ireland includes a table showing, in five general classes and eighteen groups, the occupations or social position of the persons whose deaths are registered weekly in the Dublin Registration District, the annual death-rate represented by the deaths registered, the number of deaths at each of six periods of life, and the number from each of the principal causes of death. This table has already supplied some suggestive and instructive information. Thus, the second quarterly return for 1883 shows that in the thirteen weeks ending June 30, 1883, the number of deaths registered in the Dublin Registration District (the total area of which is 24,710 statute acres, and the population of which, estimated to the middle of this year, is 349,685) amounted to 2,674—1,294 males, and 1,380 females—affording an annual ratio of 1 in 32.7, or 30.6 in every 1000 of the estimated population. The deaths in families of the "professional and independent class" were equal to an annual rate of 24.3 per 1000 of the persons in that class; in the "middle class" the death-rate was 26.8 per 1000; among the "artisan class and petty shop-keepers," it was 23.6; and in the "general service class"

and the "inmates of workhouses" combined, it was 38.6. Among the last division, "inmates of workhouses" taken separately, the rate was as high as 43.6 per 1000 per annum; whereas, among the subdivision of the professional and independent class entitled "persons of rank and property not otherwise described" (numbering 19,030), the death-rate was only 18.5.

THE MINERAL WATERS.—When one day there comes to be written, from the standpoint of modern science, a history of human superstition, those chapters of the work which deal with belief in the various virtues from time to time accredited to waters, either of miraculous or of natural origin, will assuredly not be either the shortest or the least interesting. No one who has visited one of the springs which occur in almost every rocky range from the Grampian to the Pyrenees, and which a ready faith invests with supernatural curative power, can see much reason to expect that such belief will suffer measurable diminution for many generations. With the mineral spring proper the case is different; and while it seems long to look back to the time when the temples to Esculapius were erected near to such sources, and while it is true that even today much mysticism is allowed to surround the subject, the chemist of the age is in a position to assert that the curative action of any given mineral water is a result of the combined therapeutic action of the sum of its constituents.—*Medical Press.*

AWAY WITH THE SPOON.—A contemporary proposes to get rid of the use of "spoonfuls" as doses by the following expedient: "Let each bottle (vial) be provided with a strip of paper pasted on, which strip is accurately divided with as many lines (marks) as the bottle contains doses to be taken, the lines to be numbered, beginning with the topmost, and let the directions read: Take one eighth (fourth, twelfth, etc.) part, as the direction shall run, or, perhaps better, take one division, etc. The strip to reach from the bottom of the bottle (vial) to the top of the liquid, not farther."—*Medical Record.*

FOREIGN CHARLATANS.—We are acquainted here in France, says the *Gazette Hebdomadaire*, with the American quack high in color, loud in voice, noisy and impudent; with the Spanish charlatan, mystic, somber, the crucifix in hand, always ready in prayer;

with the paternal Dutch imposter, writing his consultations with a flask of urine in hand, as in the famous "Dropsical Woman" of Gerard Dow. But the German charlatan is of a different species; he is surrounded with electric piles and apparatus; he is a professor of occult physical science, who cures with the same spark pulmonary tuberculosis and cerebral debility. He is a professor, a distinguished lecturer, the apostle of a newly-discovered art. The Medical Society of Leipzig are about to take measures against two such individuals, one an ex-carpet-worker, now director of an electrotherapeutic establishment, and another, Hindorf, a professor of natural medicine.—*Medical Press.*

DR. REGINALD SOUTHEY has been appointed Commissioner in Lunacy, in place of Dr. Robert Nairne, resigned, and has therefore, in due course, resigned his appointment of physician to St. Bartholomew's Hospital.—*British Medical Journal.*

[A better appointment could not have been made. Dr. Southey is one of London's best medical men.]

DR. JOHN S. BILLINGS has declined the offer of the Professorship of Hygiene in the Johns Hopkins University. The *Medical News* gives as his reason that it is impossible for him to hold this place while he is an officer of the army, and that he prefers to retain the latter position and to continue his library and indexing work, for the present at all events.

TESTAMENTARY CAPACITY.—There is something both contemptible and frightful in the sort of evidence on which, of late years, any person can be judicially declared unfit for the management of his affairs; and after his death his disposal of his property can be set aside if there is enough of it to pay the expenses of litigation—which are charged on the property itself.—*John Stuart Mill.*

PASTEUR, at the head of a commission for the investigation of cholera, is about to start for Egypt. The following gentlemen accompany him: MM. Roux and Thuillier of Pasteur's Laboratory, Strauss, of the Faculté de Médecine, and Nolaco.

THE Progrès Médical, of July 28th, announces the death, in Florence, of Pacini, the discoverer of the corpuscle which bears his name. He was born in 1812.

The Louisville Medical News.

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LUNSFORD P. YANDELL, M.D., - - - } Editors.
H. A. COTTELL, M.D., - - - - - }

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AMERICAN MEDICAL COLLEGE ASSOCIATION.

It seems to be a prevalent opinion with the medical press that the American Medical College Association is no more, as may be seen by articles like the following, which we quote from the Weekly Medical Review:

The Southern Practitioner reports the death, at Nashville, Tennessee, on the 20th ultimo, of the American Medical College Association. (Medical Age.) It announces the cause of death as "The Bellevue Stab." This reference is, evidently, to the famous advance and precipitate retreat of Bellevue Hospital Medical College, a couple of years ago, on the question of an advanced standard of medical education. Bellevue was loud in her demands for a higher standard, and in the fullness of time went up to possess the land. But she soon discovered that she had been too previous, as it were. She is of "the-old-flag-and-an-appropriation" style of patriot, and was loud for advance as long as the cry seemed popular and was likely to draw students. When, however, the students refused to follow, she quickly sounded the retreat, and thus, as our contemporary intimates, gave the death-blow to the movement to improve medical education in this country.

Here we find in one paragraph an opinion to which three editors give assent, and doubtless many more can be found who would testify in like manner.

That there is some ground for the statement we will not presume to deny, since it

is true that the Association met at Cincinnati in May, last year, and did little more than to make a list of the prominent Eastern colleges which had withdrawn from it; and again this year, in Nashville, found itself short of a quorum by one member. But in view of the fact that among those who did assemble were to be found representatives of several of our most influential Southern and Western schools—men like Seely, of Cincinnati, Bodine, of Louisville, Briggs and Roberts, of Nashville, and Connor, of Detroit, who have been prominent throughout the whole history of the movement—and, in consideration of the expressed determination of these gentlemen to continue the organization by devising a platform upon which all the reputable colleges of the land can stand without prejudice to the vital interests of any, the flippant announcement of the death of the Association is at least premature.

Among the measures contemplated with a view to revivifying the organization, the following met with unanimous favor, viz: That a minimum of qualifications entitling a college to membership be stated, and that each applicant must show what might be called property qualifications, such as the command of a certain number of beds in some well-conducted hospital, and the possession of chemical, microscopical, and other laboratories, in which shall be found all necessary equipments with qualified demonstrators in charge. The sending out of notices embodying these and other suitable propositions to the leading medical schools, with a view to calling a convention in the near future, was also considered.

It is believed that thus a common ground of meeting may be fixed upon, and that the seceding schools will find it to their interest to return to the Association, where all can labor in common for substantial reform in medical teaching, while ephemeral and irresponsible institutions will be barred out.

To those who can be made to take an unbiased view of the case, some signs of

life will, we think, be evident, and to such we would say "break not the bruised reed, quench not the smoking flax;" while to those who can not see these signs of life, we beg to suggest that they wait until all the tests of vitality have been applied and the evidences of death confirmed, before hurrying the remains underground and gleefully proclaiming to the world that the only champion of medical reform in America is dead.

A word for Bellevue. It is not kind to say that Bellevue stabbed the cause of reform; she simply deserted it, and the majority of the Eastern colleges were prompt to follow, thus turning the desertion into a successful and respectable retreat. We do not blame Bellevue, she had her living to make, and the new movement cost her nearly half her income. The real enemy of reform, and the one who gave the sorry stab, was the sly old University of New York, just across the way from Bellevue, who, when she saw her neighbor enter on the reform ticket, laughed in her sleeve, lay low, said nothing, kept her fees down, winked at the boys, and took them in. The result was that, before the close of the following session, the University could show a matriculation list of seven hundred and fifty students, while poor Bellevue had only three hundred and fifty. The competition was more than she could stand; she dropped her colors, and went back to play her old neighbor at her own game. Is there any school in the land which, under the same circumstances, would not have done as Bellevue did? We make grave question of it.

THE CHOLERA.

Cholera has passed the limits of the Delta of the Nile, appearing at Beyrout, in Syria, and in the province of Beni-Souef, in Central Egypt, where one hundred and three deaths were reported on August 3d and 4th. A dispatch from Alexandria, August 2d, gives the total mortality of the epidemic up

to that date as eleven thousand, but the London Daily News puts the figure at sixteen thousand.

In Cairo there have been over five hundred deaths daily, and the British army had lost one hundred and ten of its number up to the 6th inst.

The disease has gained a foothold in Alexandria, but is reported not to be making any great headway in that place. The Turkish, Austrian, Spanish, French, British, and American sanitary authorities, are taking all necessary precautions against a possible invasion. All vessels hailing from Egypt and Syria will doubtless be placed in quarantine, the ships and their cargoes being disinfected before passing into any port. It appears that rags, wool, skins, and hair are shipped from Egypt in large quantities to England and America, and are giving the coast inhabitants no little concern. Ship-loads of rags are threatening Liverpool, Eng., and Portland, Me; a large cargo of skins and hair is menacing Philadelphia, while New York stands appalled at the prospect of soon receiving from Egypt and Syria a fleet-load of wool alleged to have been extracted from spent mattresses in those countries.

It is said by certain sanitarians that the United States was never in a condition more favorable to the reproduction and spread of the disease, should the fatal germ be landed upon our shores, since the introduction into many of our towns and cities (particularly in New England) of full water-supplies by means of water-works, in advance of proper sewerage, "have greatly multiplied the means of distributing filth, contaminated the soil, and befouled the water-courses and drinking-water to a degree probably unequaled in any other country." (Sanitarian.) All this is indeed alarming, and should serve to put us on our guard.

Comfort may, however, be taken in the following reflections: (1) That the distribution of cholera by means of formites is not yet proved, and that our sanitary authorities will prevent its possible demonstration

in these parts by rigid quarantine. (2) That the local conditions for the propagation of cholera germs are with us, in the Northern and Middle States at least, probably wanting in the factor of heat; and (3) that, notwithstanding the fact that the disease has been prevailing in Egypt for several months, it has not yet succeeded in crossing the Mediterranean into Southern Europe, where intercourse between lands is constant and the conditions for its reception and propagation would seem to be favorable. Until cholera crosses the Mediterranean, the dwellers on this side of the Atlantic, though properly on the alert, need not be unduly alarmed.

Bibliography.

SOME RECENT ADVANCES IN THE SURGERY OF THE URINARY ORGANS. An address delivered before the fifty-first annual meeting of the British Medical Association at Liverpool, on August 1, 1883. By Reginald Harrison, F.R.C.S., Surgeon to the Royal Infirmary; Member of Council, Liverpool University College, etc. London: J. & A. Churchill, New Burlington Street. 1883.

In this address may be found in terse and concise statement an accurate survey of the past attainments and present aspects of urethral surgery. Its able and accomplished author, while giving due prominence to the services done in this department of surgery by Sir William Thompson and his English collaborators, pays a graceful tribute to the recent brilliant achievements of Bigelow and other American surgeons.

Several extracts may be found among our miscellanies in this issue which will give the reader a fair idea of the style and scope of the address; but we take it that no one who makes a practice of surgery will fail to read it in its entirety. The address was delivered on the 1st inst., and received by us on the 11th. The enterprise shown in getting the document thus early before the profession is certainly remarkable.

SCIENCE, an illustrated journal, published weekly at Cambridge, Mass. Subscription price in U. S., \$5 per year. Moses King. July 20, 1883. Vol. II, No. 24.

This is a well edited journal of scientific literature. The present number con-

sists of thirty pages, twenty of which contain carefully written original articles on current scientific topics, the remainder of the journal being devoted to reviews, a summary of the progress of science, items of news, bibliography, etc.

The periodical is owned by a company of eminent and wealthy scientific men, among whose directors may be found such names as Daniel C. Gilman, President of the Johns Hopkins University; Prof. Alex. Graham Bell, inventor of the telephone, and Othniel C. Marsh, President of National Academy of Sciences, with others no less distinguished in the annals of science. Certainly no journal ever began its career with more promise of brilliant results, and that the editors and managers are making the promise good will be evident to any reader of the present number. Its success is assured.

HISTORY AND PRACTICE OF QUARANTINE AND ITS RELATION TO CONSTITUTIONAL AND INTERNATIONAL LAW AND TO COMMERCE. By Joseph Jones, M.D., President of the Board of Health, State of Louisiana. New Orleans: E. A. Branado & Co. 1883.

This pamphlet is the result of much curious research, and presents to the reader a digest of what is known relative to the points named in the title. Such knowledge can be obtained only by hunting through massive and unreadable public documents, and Dr. Jones deserves the thanks of all interested in sanitary literature for saving them a deal of labor. The author makes a strong argument for quarantine, and will find many appreciative readers.

SHADE-TREES, INDIGENOUS SHRUBS, AND VINES. Second edition; revised and improved. By J. T. Stewart, M.D., Peoria, Ill.

This pamphlet, though intended for local circulation, is invaluable as a contribution to the subject of forestry and floriculture throughout the middle belt of the United States. The author is a physician of thirty-five years standing and a surgeon of great local prominence. The work shows much research and careful study; is concise and comprehensive, and can not fail to popularize a subject which, aside from its æsthetic bearings, is a prominent factor in the problem of public health. No one contemplating the planting of shade-trees should fail to read Dr. Stewart's book.

OPINION AS TO LEGALITY OF QUARANTINE LAWS OF LOUISIANA. By F. C. Zacharie, Attorney of Board of Health, State of Louisiana.

Correspondence.

ARE DRUGGISTS DOCTORS IN MEDICINE?

Editors Louisville Medical News:

Are druggists doctors in medicine? Some of them are. The great majority of them are not. And the only object which the writer has in view is to call the attention of the profession, and the public as well, to the practice done by the latter class. These apothecaries, most of whom are Germans, are venders of compounds and salesmen of toilet articles over their counters. Merchants in drugs most of them are. Usually the proprietor is obliged for his own protection to be fortified with a diploma from a college of pharmacy, certifying that he is sufficiently proficient in the art of mixing medicines to avoid error. And were he to practice but pharmaceutical art, ensconced behind his green earthen pots, we would let him pass with Shakespeare's description; but he suddenly assumes a new rôle.

Flattered by the title of distinction which in our latter day is applied to professional men and boot-blacks alike, he does not hesitate to diagnose, and dictate treatment for diseases—a branch of science of which he knows himself to be as ignorant as the average Hottentot who gathers buchu in Madagascar. Were he less ignorant, he would certainly shrink from a responsibility which a well-informed and educated physician would not undertake, that of prescribing for cases upon the statement of friends without knowing what the disease may be.

Every hour in the day pharmacists in this city are preparing compounds and selling new remedies over counters, recommending them in cases of children who may be suffering from dysentery, summer complaint, or cholera infantum, the distinction of which is not known to them.

Not less culpable on the part of a druggist is the custom of refilling doctor's prescriptions without the consent or advice of the physician. A physician informed the writer that one of his prescriptions, given several years ago to a very sick patient, had been refilled a hundred times by lending the label number to patient's friends, until finally the druggist, being familiar with its valuable properties, began to recommend it to his customers; and this to a less extent had been done with other prescriptions, ointments, etc. Thus the label on the bottle contains the doctor's authority for

taking the medicine, while he is entirely ignorant of the individual so using it as well as the indications for which it is being used. Doctors have been accused of contributing to the formation of the terrible opium-habit in patients under just such circumstances, which could never happen if they were consulted.

Certificates of the cause of death are required by the Health Officer, and this official has the authority to enforce a rigid observance of the ordinance; but the writer is cognizant of several instances of death where the druggist has been the only medical attendant, or rather prescriber (as they never go out to see their cases). The burial permit must have been obtained from the health officer, based upon a certificate of the cause of death. Did the druggist sign it?

As before stated, this article is not intended to include those apothecaries who hold medical diplomas from regular medical colleges, and who are consequently entitled to practice medicine. This double-ended practice is, as far as we know, perfectly legitimate, and, if a visiting fee is added, it is certainly remunerative.

Every doctor has the right to dispense his own medicines, and, by intrusting his prescriptions to the druggist, he certainly has the right expect in return; not alone accuracy and skill in pharmacy, but also an honorable estimation of the confidence reposed in him.

The relation between the physician and druggist is very close. The pharmacists are our allies, and it may be further said that, with the fewest possible exceptions, they are gentlemen. In European countries their number is limited to the population. In this country there are so many to the square mile that a strictly legitimate pharmacist can not live.

One of our most estimable and capable druggists recently assured the writer that he sincerely wished that the people would not apply to druggists for treatment, that he felt oftentimes that it was beyond his sphere of duty; but, if he refused to comply with their requests, they would apply to his neighbor druggist who would unhesitatingly take such customers from him. Several druggists, who have recently graduated in medicine, have had the good judgment to retire from their former business, and announce their intention to practice medicine. These gentlemen will obtain a good practice and receive the respect of the profession.

The practice of both pharmacy and medicine, says Dr. Cathell, is too much for even the most intelligent of men. One or the other is apt to be slighted, and if physicians' prescriptions fall into the hands of such, both physician and patient take a great risk. Charging nothing for advice which is worth nothing is all well enough, but making it up on the medicine is quite wrong.

J. A. LARRABEE.

Editors Louisville Medical News:

The Tri-State Medical Society will meet in English's Hall, at Indianapolis, on the 18th, 19th, and 20th of September, 1883, commencing on the 18th, at 9 A. M.

Excursion rates have been secured on all the railroads coming into Indianapolis; The hotels have reduced their rates for the occasion, and every thing promises a very large attendance. Many papers of great interest will be presented. For further particulars address Thos. B. Harvey, M.D., Indianapolis, Chairman of Committee of Arrangements.

G. W. BURTON, M.D., *Secretary.*
MITCHELL, IND.

WM. PORTER, M.D., *President.*
ST. LOUIS, MO.

Selections.

ON THE QUESTION OF OPERATIVE PROCEEDINGS IN DISEASES OF THE LUNGS.—Dr. Bull, of Christiana, communicates, in a recent number of the *Nordiskt Medicinskt Arkiv*, an interesting case bearing upon the above question. He also gives a brief review of the literature relating to the operations hitherto performed in diseases of the lungs, together with some observations on the indications connected with the opening of tuberculous cavities, and he draws attention to some new possibilities of limited expiratory expansion of the pectoral wall. The case was that of a man, twenty-nine years old, who entered the State Hospital of Christiana, exhibiting all the signs of advanced pulmonary tuberculosis, such as hectic fever, violent cough, abundant mucopurulent expectoration, emaciation, and anemia. In the first, and partly in the second left intercostal space, external to the left sternal border, there was observed during the fits of coughing a considerable and clearly limited expansion of the pectoral coverings,

which circumstance was not observed in tranquil breathing. This limited expiratory expansion was considered due to a superficial cavity adherent to the thorax and, perhaps, ulcerated by the pleural adhesion. Viewing the possibility of the suspected cavity offering an advanced process of ulceration; of the secretion, incompletely expectorated, flowing into the neighboring bronchi; considering that the fever and the cough were partly relieved by the opening of the cavity externally by means of drainage and disinfection, and that the expiratory expansion in front might perhaps indicate a commencing perforation of the thoracic wall; taking all these matters into consideration it was determined, with the consent of the patient, to try the operation. This was accordingly performed, and after the perforation of the thoracic wall the finger could be introduced into a small empty cavity, limited on all sides by smooth walls, the base of which was formed by a solid elastic tissue. There was no sound of air entering or going out. The day after the operation, during a fit of coughing, there was a sudden discharge by the wound of a liquid like that of expectoration, and this discharge continued abundant, but without relief to the patient, who died in six days.

On post-mortem examination the left lung was found to be separated almost entirely by from three to four centimeters from the thoracic wall, and there were only a few filiform adhesions with the upper parts. There was fibrinous pleurisy and a little pus in the pleural cavity. At the apex of the lung there was a large superficial cavity. In other respects in both the lungs there were the usual indications of phthisis. The differential diagnosis between a cavity and a pneumothorax in cases such as the above can not be made with certainty, and, considering the possibility of mistake, Dr. Bull advises that pulmonary operations should always be performed with the aid of antiseptics, so that if the incision reveals a pneumothorax the wound may then be closed and the operation be regarded only as "diagnostic." Dr. Bull has found in medical literature the records of nineteen cases in which the opening of pulmonary cavities has been undertaken. Five of these, however, are imperfectly reported, or the diagnosis was too doubtful to be of any service. Of the rest of the cases, two were instances of bronchiectatic cavities, in one case the bronchiectatic cavity was consecutive to pneumonia, five were cases of pulmo-

nary abscess, three of pulmonary gangrene, two of tuberculosis, and one of echinococcus of the lung. The results of the operations were as follows, viz: Cases perfectly cured, two; very marked improvement, two; more or less relief, seven; no ill consequences, one; cases made worse, two. As to the tuberculous cavities, experience is almost entirely wanting as to the effect of artificial pulmonary fistulæ, and it belongs to the future to demonstrate whether an operation of this kind is more dangerous in phthisical patients; but even when this proceeding might appear to be without danger, it should not be performed at a too advanced period of the disease.—*Medical Times and Gazette*.

MANAGEMENT OF CHOLERA AT DAMIETTA. The British Medical Journal quotes the following from a sanitary report by Dr. Mackie, of Alexandria: The sanitary cordon, which is the favorite Egyptian mode of dealing with cholera, has failed to effect its object. The cordon set about Damietta was too small, and a large proportion of the population escaped; but the cordon that is now about Mansourah is said to be so strict that all communication has ceased, and the people herded within it are without food or medicine. On July 3d, however, the Council of Public Health at Cairo (near which the British troops are stationed) gave orders that the population at Damietta should be removed from their dwellings and scattered in tents and wooden structures, and that the infected quarter of the town should be partly burnt and partly disinfected. This was a laudable attempt to put the Indian mode of dealing with cholera in the place of the Egyptian method. In striking contrast with the unhappy method of surrounding a town with soldiers, and leaving the inhabitants to "stew in their own juices," is the plan of frequent removal from infected quarters to a healthy camp, and, if possible, to high land. The healthy are separated from the sick and are scattered in tents. During the last twenty years this plan has been generally adopted throughout India, when cholera has broken out among troops or prisoners. But to be successful it must be thorough; and the Egyptian Government would be amply justified in seeking the aid of our troops and Indian medical officers in carrying it out. While English sanitarians almost unanimously ascribe the spread of cholera epidemics to the pollution of wells and rivers, many Indian sani-

tarians hold this to be an insufficient explanation. The medical officers in charge of the health of our Indian troops are often compelled to disregard the pollution of streams, which it is impossible for them to prevent. In the Delta of the Nile, unless perhaps by forced native labor, it would also be impossible to clear the water-courses of infection, and the epidemic must be otherwise dealt with.

HUMAN PARASITES.—Dr. George Sutton gives the following list, showing the principal parasites which infect the human system:

Microzymes.—Micrococci: Probably of smallpox, cow-pox, measles, scarlatina, varicella, erysipelas, syphilis, gonorrhea. Bacilli: Probably of typhus fever, typhoid fever, tuberculosis, anthrax, leprosy. Vibriones. Filaria: Probably of elephantiasis. Spirillum: Probably of relapsing fever. Bacteria: Probably of septicemia.

Entozoa.—Vermes—Cestoda: Probably of tenia elliptica, tenia flavo punctato, tenia mediocanellata, tenia latus, tenia solium, tenia bothriocephalus caudatus, tenia bothriocephalus latus. Nematoda: Probably of ascaris lumbricoides, ascaris mystax, oxyuris vermicularis, filaria medinensis, dochmius duodenalis, trichocephalus dispar, trichina spiralis. Trematoda: Probably of monistoma, distoma.

Epizoa.—Insects—Acarus scabei.—Pediculida: Probably of pediculus capitis, pediculus vestimenti, pediculus tabescentium, pediculus pubis originalis. Pulex: Probably of pulex irritans, pulex penetrans. Ixodia: Probably of ixodes Americanæ, ixodes numarias, ixodes crenatus.

Undoubted vegetable parasites and their diseases.—Microphites—Achorion schönleinii: Probably of favus. Trichophyton tonsurans: Probably of porrigo scutulata. Microsporon audouini: Probably of porrigo decalvans. Microsporon mentagrophytes: Probably of mentagra. Microsporon furfur: Probably of tinea chloasma.—*Cincinnati Lancet and Clinic*.

GLACIAL PHOSPHORIC ACID, A TEST FOR ALBUMEN.—Dr. Henry Zaffman, in the Polytechnic, states that the ordinary solid glacial phosphoric acid is a delicate test for albumen in the urine. A piece of the stick acid, not larger than a small pea, should be dropped into the urine, which is allowed to stand for a few minutes without heating. The albumen, if present, quickly appears as a cloud, which, on shaking the tube, breaks

up into flakes. On allowing the tube to stand for a longer time, a more or less abundant precipitate falls, according to the amount of albumen present. The urine, if turbid, should be filtered before testing. The acid must be used in solid form, since a solution of it quickly changes into metaphosphoric acid, which will not coagulate albumen.

CHOLERA AND THE POLLUTION OF RIVERS.

In commenting on the possible introduction of cholera into England, the British Medical Journal calls attention to the polluted state of numerous English rivers, with the following timely warning: "It would be well to remember that cholera is both endemic and epidemic, and that rivers in a polluted condition may invite the localization of this dreaded disease, should the intercommunication between India and the centers of manufacture in England through Egypt unfortunately bring it to our shores."

ARMY MEDICAL INTELLIGENCE.

OFFICIAL LIST of Changes of Stations and Duties of Officers of the Medical Department, U. S. A., from August 4, 1883, to August 11, 1883.

McParlin, Thomas A., Lieutenant Colonel and Assistant Medical Purveyor, relieved from duty in charge of the purveying depot in San Francisco, California, to take effect September 1, 1883, and will then proceed to New York City and relieve Assistant Medical Purveyor, Ebenezer Swift, of the charge of the purveying depot in that city. Assistant Medical Purveyor McParlin will transfer all funds and public property in his possession to Medical Stock-keeper Henry Johnson, who, until further orders, will perform the duties of acting assistant medical purveyor at the purveying depot in San Francisco. (Par. 5, S.O. 183, A.G.O., August 9, 1883.) *Magruder, David L.*, Lieutenant Colonel and Surgeon, leave of absence extended one month. (S.O. 89, Mil. Div. of the Missouri, August 4, 1883.) *Forwood, William H.*, Major and Surgeon, to proceed to Fort Washakie, Wyoming, and Fort Ellis, Montana, on public business, and return. (S.O. 87, Mil. Div. of the Missouri, August 2, 1883.) *Woodward, Joseph J.*, Major and Surgeon, leave of absence, granted on account of sickness by S.O. 34, extended six months. (S.O. 179, A.G.O., August 4, 1883.) *Byrne, Charles B.*, Captain and Assistant Surgeon, relieved from duty at Fort Craig, N. M., and assigned to duty at Fort Lewis, Colorado. (Par. 3, S.O. 161, Dept. of the Missouri, August 6, 1883.) *Lauderdale, John V.*, Captain and Assistant Surgeon, granted leave of absence for two months, to take effect on or about the 15th instant. (Par. 2, S.O. 90, Dept. of the Missouri, August 6, 1883.) *Banister, John M.*, First Lieutenant and Assistant Surgeon, relieved from duty in the Department of the Missouri, and assigned to duty in the Department of the East. (Par. 5, S.O. 183, A.G.O., August 9, 1883.) *Carter, William F.*, First Lieutenant and Assistant

Surgeon, relieved from duty in the Department of Texas, and assigned to duty in the Department of the East. (Par. 5, S.O. 183, A.G.O., August 9, 1883.) *Kane, John J.*, First Lieutenant and Assistant Surgeon, relieved from duty in the Department of the Missouri, and assigned to duty in the Department of the East. (Par. 5, S.O. 183, A.G.O., August 9, 1883.) *Owen, W. O., jr.*, First Lieutenant and Assistant Surgeon, to proceed from Vancouver Barracks to Fort Walla Walla, W. T., and report to the commanding officer of the latter post for temporary duty. (S.O. 101, Dept. of the Columbia, July 27, 1883.)

OFFICIAL LIST of Changes of Stations and Duties of Medical Officers of the U. S. Marine Hospital Service, April 1, 1883, to June 30, 1883.

Bailhache, P. H., Surgeon, to examine officers and cadets of the Revenue Marine Service, April 2, May 28, and June 4, 1883. To proceed to New York, N. Y., to make arrangements for the care of seamen, April 30, 1883. To proceed to Chattanooga, Memphis, St. Louis, Cairo, Evansville, Louisville, Cincinnati, Gallipolis, Wheeling, and Pittsburgh, as inspector, June 23, 1883. *Miller, T. W.*, Surgeon, detailed as President Board of Examiners, May 15, 1883. Detailed as member of Board for the physical examination of cadets of the Revenue Marine Service, May 15, 1883. *Wyman, Walter*, Surgeon, detailed as member of Boards for the physical examination of officers and cadets of the Revenue Marine Service, May 1, 15, and 28, 1883. Detailed as member Board of Examiners, May 15, 1883. *Murray, R. D.*, Surgeon, to proceed to Pensacola, Fla., and take charge of Quarantine Service, May 21, 1883. *Gassaway, J. M.*, Surgeon, granted leave of absence for ten days, April 21, 1883. Detailed as Recorder Board of Examiners, May 15, 1883. *Smith, Henry*, Surgeon, granted leave of absence for thirty days on account of sickness, June 14, 1883. *Fisher, J. C.*, Passed Assistant Surgeon, detailed as member of Boards for the physical examination of officers of the Revenue Marine Service, May 1, and June 4, 1883. *Cooke, H. B.*, Passed Assistant Surgeon, granted leave of absence for thirty days, May 15, 1883. *O'Connor, F. J.*, Assistant Surgeon, relieved from duty at Detroit, Mich., and assigned to temporary duty at Boston, Mass., May 10, 1883. *Guitras, John*, Assistant Surgeon, granted leave of absence for thirty days, without pay, April 3, 1883. *Armstrong, S. T.*, Assistant Surgeon, to proceed to Memphis, Tenn., for temporary duty, May 21, 1883. *Bennett, P. H.*, Assistant Surgeon, granted leave of absence for thirty days on account of sickness, June 26, 1883. *Ames, R. P. M.*, Assistant Surgeon, granted leave of absence for fourteen days, April 3, 1883. *Deven, S. C.*, Assistant Surgeon, detailed as medical officer Revenue Str. "Corwin," during cruise in Alaskan waters, April 16, 1883. *Bevan, A. D.*, Assistant Surgeon, to proceed to Detroit, Mich., for temporary duty, June 11, 1883. *Glennan, A. H.*, Assistant Surgeon, to proceed to Norfolk, Va., for temporary duty, June 26, 1883.

Appointments.—The following candidates having passed the examination required by the Regulations were appointed Assistant Surgeons by the Secretary of the Treasury, June 6, 1883: *Arthur D. Bevan, M. D.*, of Illinois, and *Arthur H. Glennan, M. D.*, of the District of Columbia.